

GP/3751

CASE 1161

PATENT

I CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO THE COMMISSIONER OF PATENTS AND TRADEMARKS, WASHINGTON D.C. 20231 ON February 6, 2000 AND THAT MY SIGNATURE IS ALSO AS OF THIS DATE.




FORREST L. COLLINS

#2 / Prior art
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Joseph E. Coury, et al.

Serial No. 09/691,713

Filed: October 18, 2000

Title: Personal Gas Supply Delivery System

Examiner:

Art Unit 3751

Paper

CITATION OF ART

Dear Sir:

Enclosed with this letter are cited references and sheets of PTOL 1449 prepared for the Examiner to consider the cited art. The cited references are discussed below:

United States Patent 6,067,022 granted to Laswick, et al., on May 23, 2000 describes an in-line low supply pressure alarm device powered solely by supply flow of pressurized gas from a gas supply for providing an alarm signal when supply gas pressure is below a selected minimum pressure. The alarm device includes a manifold having an input port for communicating with the supply gas supply, an output port for conducting the gas downstream and a manifold chamber disposed therebetween.

The Laswick, et al., patent utilizes gas powered alarms such as an audible reed alarm or a visual pneumatic alarm are connected to the manifold chamber via an alarm supply conduit, and produce an alarm signal when pressurized gas passes to the alarms. According to the Laswick, et al., patent a supply gas pressure sensor, in communication with the manifold chamber, produces an actuating flow of pressurized

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gas by activating a pressure switch, in response to sensing of an supply gas pressure below the selected minimum pressure.

United States Patent 6,067,022 to Laswick, et al., further provides a pneumatic alarm output switch, in the alarm supply conduit and in communication with the pressure sensor and pressure switch via an actuation conduit, controls gas flow to the alarms in response to the actuating flow. The Laswick, et al., patent preferably includes an alarm oscillation system is included for alternating the direction of the actuating flow to and from the alarm output switch, to open and close the alarm output switch thereby turning the alarm on and off in a cyclical fashion.

United States Patent 4,674,321 issued to Joshi on June 23, 1987 describes a leak detector employing an ion-conducting membrane is disclosed. The Joshi patent describes an oxygen-ion conducting membrane which employs a high vacuum on one side is used to detect very small quantities of oxygen flowing through a minute fissure in a part to be tested for leaks. The Joshi patent further describes an oxygen-ion conducting membrane which is biased with direct current voltage to drive oxygen-ions through the membrane away from the high vacuum side.

United States Patent 3,133,997 to Greene issued May 19, 1964 describes a fluid-pressure activated switch. Pressure activated switches are described in the MPL publication available at mpl@pressureswitch.com 555 SW 12 th Avenue Pompano Beach, Florida 33069. Further disclosures of pressure activated switches are found at World Magnetics 810 Hastings Street Traverse City, Michigan 49686, telephone: 231-946-3800 and fax: 231-946-0274 and located on the web at <http://www.worldmagnetics.com>.

United States Patent 5,057,822 to Hoffman issued October 15, 1991 describes a medical gas alarm system is provided which includes a sensor unit pneumatically connected to a medical gas supply line and a switch connected to a valve in the supply line for detecting the open condition of the valve.

In the Hoffman patent, in the event either the sensor detects a high pressure or

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low pressure condition in the supply line or closing of the valve activates the switch, an alarm signal is received by an alarm module and an alarm is activated. The alarm of the Hoffman patent may be visual, audible or both. During normal operations, the alarm module of the Hoffman patent displays both a system on condition and a digital display indicating the pressure in the supply line.

The Hoffman patent also includes a method of monitoring the condition of a medical gas delivery system which includes sensing the pressure in the gas supply line, detecting the open condition of the valve, transmitting an alarm signal to an alarm module in response to alarm conditions detected either as a result of improper pressure or valve closure, and generating a humanly perceptible alarm warning in response to receipt of an alarm signal.

Fukui in United States Patent 5,457,333 issued October 10, 1995 describes a gas sensor comprises a precious metal electrode, a semiconductor layer entirely or partly covering the precious metal electrode, a barrier layer having a high potential formed at an interface between the precious metal electrode and the semiconductor layer. The Fukui patent recites a gas sensor for use in a leak detector for detecting a fuel gas such as town gas, the sensor comprising a precious metal electrode; and a semiconductor layer at least partly covering said precious metal electrode, wherein the semiconductor layer includes, as a main component, at least one substance selected from the group consisting of tin oxide, zinc oxide and indium oxide.

The Fukui patent precious metal electrode is formed of a substance selected from the group consisting of platinum, gold, ruthenium, lead, silver, iridium, and alloys thereof and has a barrier layer having a high potential formed between said precious metal electrode and said semiconductor layer and on a surface of said precious metal electrode. The barrier layer described in the Fukui patent comprises either a substance formed by electrodeposition and selected from the group consisting of platinum, palladium, gold and rhodium, or a substance formed by thermal decomposition and selected from the group consisting of platinum, palladium and gold,

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said barrier layer being capable of enhancing sensitivity to isobutane gas relative to other gases.

United States Patent 5,293,866 issued to Padula March 15, 1994 provides a description of an indicator device which can be attached to a standard oxygen flow meter is disclosed. The indicator device described in the Padula patent has a rod along which a pointer can be moved and locked into position. The pointer in the Padula patent can be set at the oxygen flow level prescribed by the physician as indicated by the scale on the oxygen flow meter. If the oxygen flow level, as described in the Padula patent, is changed or if oxygen is discontinued for any period of time, the attendant can then set the oxygen flow to the prescribed level by controlling the valve on the oxygen flow meter so that the float, which indicates oxygen flowing liters per minute is positioned opposite the position of the pointer. The foregoing mechanism recited in the Padula patent prevents erroneous or improper setting of oxygen flow levels to patients after interruption or change of oxygen flow level, which can be dangerous, and life threatening.

Should questions concerning this application arise they may be directed to the

The Examiner may telephone the undersigned to advance prosecution of this application.

Respectfully submitted,



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